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Agricultural Memorandum No.550

County Values of Excess Winter Rain 1972-3

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The method described in Agricultural Memorandum No.549 has been applied to the station values of excess winter rainfall in 1972-73 and the resulting county estimates are shown in the appendix.

Any comments or suggestions to this paper should be referred to the author.

Meteorological Office
Bracknell

May 1973

APPENDIX

County	Reference Stations In County	EWR 1972-3 ins	Conversion Factor	Reference Stations Outside County	EWR 1972-3 ins	Conversion Factor	County Estimate EWR	% of Average
1. Northumberland	Berwick	0.0	2.18	Carlisle	5.2	1.11	$2\frac{1}{2}$	16
	Acklington	0.5	1.79	Tynemouth	0.0	1.94		
				Newton Rigg	10.9	0.96		
2. Cumberland	Carlisle	5.2	2.18	Newton Rigg	10.9	1.89	15	48
	Sellafield	11.5	1.22	Cartmel	17.6	1.08		
3. Durham	Tynemouth	0.0	1.73	Acklington	0.0	1.60	2	16
	Durham	0.5	1.65	Newton Rigg	10.9	0.85		
				Leeming	1.7	1.84		
				Scarborough	2.2	1.75		
4. Westmorland	Newton Rigg	10.9	2.36	Sellafield	11.5	1.52	23	59
				Cartmel	17.6	1.35		
5. Yorkshire, North Riding	Leeming	1.7	1.89	Durham	0.5	1.69	4	28
	Scarborough	2.2	1.79	High Mowthorpe	2.8	1.20		
				Harrogate	4.1	1.15		
				Newton Rigg	10.9	0.87		
6. Lancashire	Cartmel	17.6	0.79	Sellafield	11.5	0.89	$12\frac{1}{2}$	55
	Kirkham	9.4	1.32	Harrogate	4.1	1.82		
	Ringway	8.9	1.60	Hawarden Bridge	5.6	2.46		
7. Yorkshire, West Riding	Harrogate	4.1	1.39	Leeming	1.7	2.27	$7\frac{1}{2}$	41
	Cawood	1.5	2.40	Newton Rigg	10.9	1.05		
				Warsop	3.5	3.13		
				Morley	6.8	1.94		
8. Yorkshire, East Riding	Hull	1.5	1.22	Leeming	1.7	1.22	2	20
	High Mowthorpe	2.8	0.78	Scarborough	2.2	1.16		
				Finningley	0.5	1.77		
				Askham Bryan	~~6.9~~ 2.3	1.07		

County	Reference Stations In County	EWR 1972-3 ins	Conversion Factor	Reference Stations Outside County	EWR 1972-3 ins	Conversion Factor	County Estimate EWR	% of Average
9. Cheshire	Hawarden Bridge Ringway	5.6 9.4	1.41 0.92	Hanmer Newport Stone Morley	7.3 5.9 8.5 6.8	1.18 1.62 1.34 1.46	9	69
10. Derby	Morley	6.8	1.71	Penkridge Warsop Stone Harrogate	6.0 3.5 8.5 4.1	1.45 2.75 1.57 1.22	10	65
11. Nottingham	Warsop Sutton Bonington	3.5 3.3	1.43 1.14	Finningley Lincoln Newton Linford Morley	0.5 1.5 4.5 6.8	1.51 1.27 0.89 0.89	4	47
12. Lincoln	Finningley Manby Lincoln	0.5 1.5 1.5	1.34 1.31 1.16	Hull Wittering	1.5 1.1	0.92 1.27	1½	20
12a. Lincoln (Holland)	Terrington St Clement	2.3	1.82	Wittering Lincoln Marham	1.1 1.5 1.5	1.23 1.13 1.17	2½	38
13. Rutland	Wittering	1.1	1.59	Newton Linford Sutton Bonington Raunds	4.5 3.3 2.1	0.99 1.27 1.65	3	35
14. Leicester	Newton Linford	4.5	1.12	Sutton Bonington Elmdon Raunds	3.3 5.5 2.1	1.44 0.82 1.87	4½	46
15. Stafford	Stone Penkridge	8.5 6.0	1.42 1.31	Newport Elmdon Morley Ringway	5.9 5.5 6.8 9.4	1.72 1.13 1.54 0.97	9½	68

County	Reference Stations In County	EWR 1972-3 ins	Conversion Factor	Reference Stations Outside County	EWR 1972-3 ins	Conversion Factor	County Estimate EWR	% of Average
16. Shropshire	Newport	5.9	1.46	Welshpool	7.3	0.77	8	69
				Hawarden Bridge	5.6	1.27		
				Stone	8.5	1.20		
				Preston Wynne	5.5	1.53		
17. Hereford	Preston Wynne	5.5	1.70	Pershore	2.7	1.70	9	70
				Gloucester	7.3	1.26		
				Usk	13.8	0.67		
				Brecon	27.4	0.55		
				Radnor	12.9	0.59		
18. Worcester	Pershore	2.7	1.34	Preston Wynne	5.5	1.34	5½	55
				Newport	5.9	1.27		
				Elmdon	5.5	0.84		
				Gloucester	7.3	0.99		
19. Warwick	Elmdon	5.5	0.85	Pershore	2.7	1.35	4	38
	Wellesbourne	1.5	1.42	Penkridge	8.5	0.98		
				Raunds	2.1	1.93		
				Oxford	1.4	1.30		
20. Northampton	Raunds	2.1	1.52	Newton Linford	4.5	0.91	2	27
	Wittering	1.1	1.46	Wellesbourne	1.5	1.12		
				Oxford	1.4	1.03		
				Silsoe	0.6	1.61		
21. Huntingdon	Boxworth	0.0	1.39	Raunds	2.1	1.13	½	12
				Wittering	1.1	1.09		
				Cambridge	0.0	1.30		
				Silsoe	0.6	1.20		
22. Cambridge	Terrington	2.3	1.58	Boxworth	0.0	1.36	1	20
	Cambridge	0.0	1.28	Silsoe	0.6	1.18		
				Honington	0.0	1.46		
				Marham	1.5	1.02		

County	Reference Stations In County	EWR 1972-3 ins	Conversion Factor	Reference Stations Outside County	EWR 1972-3 ins	Conversion Factor	County Estimate EWR	% of Average
23. Norfolk	Marham Morley St Botolph	1.5 0.7	1.34 0.88	Terrington Lowestoft Honington	2.3 0.0 0.0	2.08 1.32 1.93	1½	18
24. Suffolk	Lowestoft Walton-on-Haze Honnington	0.0 N.A 0.0	1.20 1.60 1.76	Cambridge Marham Stansted	0.0 1.5 0.6	1.53 1.22 1.09	½	4
25. Essex	Stansted Writtle	0.6 0.0	0.95 1.15	Walton-on-Naze Cambridge Rothamsted Gillingham	N.A 0.0 5.5 0.5	1.40 1.34 0.74 1.05	½	11
26. Hertford	Rothamsted	5.5	0.91	Silsoe Cambridge Stansted Woburn	0.6 0.0 0.6 0.7	1.51 1.64 1.17 1.18	2	27
27. Bedford	Silsoe	0.6	1.35	Woburn Raunds Boxworth Cambridge	0.7 2.1 0.0 0.0	1.06 1.28 1.57 1.47	1	12
28. Buckingham	Woburn Hurley	0.7 2.2	1.37 1.31	Oxford Raunds Rothamsted Shinfield	1.4 2.1 5.5 1.2	1.11 1.65 1.05 1.29	2½	28
29. Oxford	Oxford Hurley	1.4 2.2	1.14 1.34	Wellesbourne Woburn Gloucester	1.5 0.7 7.3	1.25 1.40 0.87	2½	29
30. Gloucester	Gloucester Long Ashton	7.3 9.0	1.19 0.77	Lacock Oxford Pershore Usk	5.1 1.4 2.7 13.8	1.20 1.55 1.61 0.63	6½	53

County	Reference Stations In County	EWR 1972-3 ins	Conversion Factor	Reference Stations Outside County	EWR 1972-3 ins	Conversion Factor	County Estimate EWR	% of Average
31. Somerset	Long Ashton	9.4	1.01	Chivenor	10.1	1.03	$9\frac{1}{2}$	59
	Cannington	6.5	1.49	Lacock	5.1	1.57		
				Boscombe Down	6.9	1.51		
32. Wiltshire	Lacock	5.1	1.28	Long Ashton	9.4	0.82	8	60
	Boscombe Down	6.9	1.23	Gloucester	7.3	1.27		
				Leckford	7.9	1.07		
33. Berkshire	Oxford	1.4	1.10	Hurley	2.2	1.29	3	33
	Shinfield	1.2	1.27	Leckford	7.9	0.71		
				Alice Holt	5.7	0.77		
				Lacock	5.1	0.85		
34. London	Southgate	1.7	0.97	Rothamsted	5.5	0.86	2	27
				Gillingham	0.5	1.22		
				Wisley	1.0	0.99		
				Croydon	2.2	1.00		
35. Surrey	Wisley	1.0	1.41	Southgate	1.7	1.39	3	28
	Croydon	2.2	1.42	Gillingham	0.5	1.73		
				Alice Holt	5.7	0.90		
				Fernhurst	7.6	0.78		
36. Kent	Gillingham	0.5	1.45	Bodiam	7.1	0.69	$1\frac{1}{2}$	18
	East Malling	0.9	1.06	Croydon	2.2	1.19		
	Herne Bay	N.A	1.89					
	Wye	3.1	0.84					
37. Sussex	Fernhurst	7.6	0.95	East Malling	0.9	1.55	$5\frac{1}{2}$	44
	Bodiam	7.1	1.00	Thorney Island	1.8	1.59		
				Alice Holt	5.7	1.10		
38. Hampshire	Alice Holt	5.7	1.09	Fernhurst	7.6	0.94	6	46
	Thorney Island	1.8	1.56	Boscombe Down	6.9	1.17		
	Leckford	7.9	1.02					
	Efford	4.7	0.89					

County	Reference Stations In County	EWR 1972-3 ins	Conversion Factor	Reference Stations Outside County	EWR 1972-3 ins	Conversion Factor	County Estimate EWR	% of Average
39. Isle of Wight	Shanklin	6.8	0.79	Efford Thorney Island	4.7 1.8	0.89 1.55	4½	36
40. Dorset	Weymouth	7.5	1.49	Boscombe Down Efford Cannington	6.9 4.7 6.5	1.53 1.17 1.50	9½	59
41. Devon	Chivenor Newton Abbot Plymouth	10.1 16.6 10.1	1.53 1.29 1.35	Cannington Weymouth Cambourne	6.5 7.5 20.6	2.22 2.20 1.37	18	73
42. Cornwall	Cambourne Ellbridge Penzance	20.6 19.4 19.3	1.39 1.21 1.20	Plymouth Chivenor	10.1 10.1	1.36 1.54	22½	92
				WALES				
1. Anglesey	Llwydiarth	13.3	1.08	Conway	15.3	1.67	18	96
2. Caernarvon	Conway	15.3	2.03	Llwydiarth Denbigh Arthog	13.3 9.1 11.7	1.31 1.72 0.61	20½	89
3. Denbigh	Denbigh Wrexham	9.1 8.4	1.68 1.45	Conway Hanmer Derwen	15.3 7.3 12.8	1.98 2.02 1.08	16½	73
4. Flint	Hanmer	7.3	1.27	Wrexham Hawarden Bridge Ringway Denbigh	8.4 5.6 9.4 9.1	0.91 1.52 0.99 1.06	9	63
5. Merioneth	Arthog Derwen	11.7 12.8	1.31 2.37	Aberporth Welshpool Denbigh Wrexham	9.1 7.3 9.1 8.4	2.35 3.20 3.68 3.18	24½	50

County	Reference Stations In County	EWR 1972-3 ins	Conversion Factor	Reference Stations Outside County	EWR 1972-3 ins	Conversion Factor	County Estimate EWR	% of Average
6. Montgomery	Welshpool	7.3	2.24	Derwen	12.8	1.66	20	58
				Radnor	12.9	1.54		
				Newport	5.9	4.23		
7. Cardigan	Aberporth	9.1	1.52	Arthog	11.7	0.85	19	59
				Radnor	12.9	1.42		
				Brecon	27.4	1.34		
				Carmarthen	19.3	1.03		
8. Radnor	Radnor	12.9	1.21	Welshpool	7.3	1.76	19	70
				Brecon	27.4	1.14		
				Preston Wynne	5.5	3.51		
9. Pembroke	Pembroke	14.6	1.31	Aberporth	9.1	1.29	16½	62
				Carmarthen	19.3	0.87		
10. Carmarthen	Carmarthen	19.3	1.14	Pembroke	14.6	1.70	24	69
				Aberporth	9.1	1.68		
				Brecon	27.4	1.48		
				Cardiff	12.9	1.60		
11. Brecon	Brecon	27.4	1.61	Radnor	12.9	1.71	30	79
				Usk	13.8	1.94		
				Cardiff	12.9	1.74		
				Carmarthen	19.3	1.24		
				Preston Wynne	5.5	4.95		
12. Glamorgan	Cardiff	12.9	1.70	Carmarthen	19.3	1.21	27	73
				Brecon	27.4	1.57		
				Usk	13.8	1.90		
13. Monmouth	Usk	13.8	1.22	Cardiff	12.9	1.10	18½	76
				Brecon	27.4	1.01		
				Preston Wynne	5.5	3.12		
				Gloucester	7.3	2.31		

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The following values should be amended in the appendix:-

County	Reference Stations in County	EWR 1972-3 INS	Conversion Factor	Reference Stations outside County	EWR 1972-3 INS	Conversion Factor	County Estimate EWR	% of average
8. Yorkshire E. Riding	Hull	1.1		Askham Bryan	2.3		2	20
12. Lincoln				Hull	1.1			
17. Hereford				For "Gloucester" read Cirencester	7.3	0.92		68
18. Worcester				For "Gloucester" read Cirencester	7.3	0.72		52
25. Essex				Rothamsted	3.4			8
26. Hertford	Rothamsted	3.4					$1\frac{1}{2}$	19
28. Buckingham				Rothamsted	3.4		2	25
29. Oxford				For "Gloucester" read Cirencester	7.3	0.64		26
30. Gloucester	Cirencester	7.3	0.87				6	48
				Wales				
13. Monmouth				For "Gloucester" read Cirencester	7.3	1.68	$17\frac{1}{2}$	73

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